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Examined

An
Inaugural Essay

Passed March 1828

On
Uterine Haemorrhage;

For
The Degree of Doctor of Medicine
In
The University of Pennsylvania.

By

P. Fitzsimons Eve,

Of
Georgia.
Philadelphia,
Sept. 1827.

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Having selected the subject of Uterine Haemorrhage for an inaugural Dissertation, my intention is to investigate its various causes, & the different conditions under which it appears; & to examine the modes of treatment sanctioned by modern observation: should no new idea or suggestion be offered in considering the subject, the indulgence due to youth & inexperience is justly claimed.

The great interest with which Anatomy has been cultivated in every age, by the most eminent that have adorned the medical science & healing art, clearly points it out the object that deserves the first attention of him, who aspires to honourable distinction & respectability in his profession. It is only by a minute investigation of the separate organs & distinct systems of which our bodies are composed, that a correct & accurate knowledge is to be obtained of the structure of each individual part, of the laws which govern them, of the functions which they perform, & of the influence which they exercise over the animal economy. And it is this information that tends to enlarge & exalt our views of human nature, that cherishes the deep spirit

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of research & lays the foundation of whatever of physiological & pathological skill, is to guide & direct us in practice.

A correct knowledge of the Anatomical structure & peculiarities of the female, is as much a prerequisite to any useful or available study of the laws & phenomena of paturition, whether healthy or morbid, as it is even to the Surgeon. Both the Surgeon & Accoucheur, proceed in the dark, if unprovided with the lights of Anatomy. Artificial delivery becomes often necessary in the affections I am about to treat of, & this can never be well performed without a knowledge of the structures concerned in it; but while I fully recognize its importance, I shall, for want of space, omit any details in this essay.

The created world has with propriety, been divided into fluids & solids, so is it with man, who has been denominated a Microcosm; & as water serves in its circulation through the great channels of the terrestial system to vivify & nourish all nature, so does the blood accomplish the same ends in our own. Hence, of the materials which compose the human body, the <u>blood</u> appears

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to be by far the most important to our well being & existence. It is this fluid which sets the animal machine in motion, which nourishes the body, sustains life, generates heat, & furnishes the various secretions. From this it may reasonably be inferred, that the due performance of the functions of each organ, is directly dependant upon the requisite quantity of blood which it receives, so that, if the circulating mass be diminished, the effects of that diminution, either in quantity or quatity, will be felt over the whole body, & perhaps in no one system more than in the nervous. And since the integrity of the nervous system is absolutely necessary for the continuation of life, or at least indispensable for the preservation of "the totality of those functions which resist death," we may infer the great danger of profuse bleedings. And if we consider how soon the vital energies of these organs, whose influence is transmitted to the most distant part, is impaired by the loss of blood, & view the extensive surfaces exposed to their action, we shall not be surprised that the

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frequent occurrence of Haemorrhages & their rapid & too often fatal termination, has rendered the subject one of the deepest interest & importance to every member of the profession.

On account of the comparatively recent discovery of the circulation, little can be expected to have been advanced towards a correct & certain mode of managing this class of diseases by the ancients; & we may add, that, the moderns have until lately done little else than dispute about the propriety of attempting their cure by art. Without entering into their controversies, or even declaring that nature often needs the hand of direction, I rely upon the bare assertion for the truth, that however critical & salutary some Haemorrhages may be, yet, that from the Uterus of the female, must always be considered dangerous, & be deemed the most unfortunate when complicated with pregnancy.

Having premised these observations, I proceed to that arrangement of the subject which appears the most perspicuous & natural, & the following simple division of Uterine Haemorrhages, will therefore be adopted, viz——

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2d. Those which happen during the period of Utero-gestation.

And 3d. Those which are connected with the delivery of the placenta.

First, those Haemorrhagies which occur in the unimpregnated state of the Uterus.

As a correct knowledge of the functions of any organ, is necessarily based upon the acquaitance we posess of its minute structure, & of the laws to which it is subjected, a few moments will not be unprofitably devoted to an examination of that one which makes woman what she is: but, not considering it as within my province to describe the anatomy of the Uterus, I shall at present be contented with a brief investigation of its sympathies & functions.

Considering this organ as a hollow muscle, well supplied with blood vessels, absorbents, & nerves; destined to undergo functional changes far beyond those that occur in any other part of our system; & gov-

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erned in the performance of its functions by the precarious laws of periodicity, we are not at a loss to account for its exercising sympathies great & diversified. Besides the influence it exerts over the mammae, respiratory organs, &c, perhaps in no two organs in the whole body, will there be discovered a greater amount of reciprocal sympathy, than that existing between the Uterus & stomach. This is so far true, that with a slight offence, the one may with propriety be compared to the other; for, upon an examination it will be found, that each possesses nearly the same structure, that they are regulated by the same principles, & that they are not under the control of the will, though capable of the greatest dilatation & contraction. From this view of the subject it appears strange that the function of secretion should ever have been denied to the Uterus; nevertheless, the contrary is still maintained by men of talent.

Now, if the stomach, composed of a peritoneal, a cellular, a muscular, & a mucous coat, & furnished with arteries, veins, absorbents, & nerves, can secrete a fluid endowed with the property of dissolving bone; why may not

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not the Uterus possessed of the same organization, elaborate by similar processes, the menses, a discharge differing but little from common blood? But should it be said that their mucous coats are essentially different, then why are they subject to the same diseases? Is it not a fact well authenticated, that parts liable to a schirrous state posses a particular organization, whereby they become predisposed to it? Does mere muscular fibre ever prove to be the seat of this disease? Are not the pylorus of the stomach, & os tincae of the Uterus, peculiarly obnoxious to it? And if cancer does not attach the muscular or mucous coat must it not their cellular or follicular apparatus, thus establishing an identity in their structure? In short, where do they differ, except in the one being smaller but having its parietes much thicker than the other, which is larger, but much thinner?—So that under certain circumstances, if the stomach be highly contracted you have a mass almost as thick as the Uterus, if the Uterus be dilated you have a muscu-

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If the observations made on the sanguiferous system, & the theory deduced therefrom by my learned & scientific preceptor Dr. C. D. Meigs, be correct, then I think there can be few, if any objections to the conclusion, that menstruation is a genuine secretion, performed by the vessels of the uterus. For, the arteries conveying the blood to their extremities, & the capillaries having the power of destroying or breaking down the red globules, convert them to the menses, while the lymphatics as in all other secretions, are concerned in the formation of new particles. How the catamenia is changed from pure blood, or why it is so, can no more be explained than the reciprocal action existing between the termination of an artery & a nerve, or the commencement of an absorbent & a vein. Perhaps in the one case, it may be stated from the theory adopted, that as the coagulation of blood is believed to be dependant on the loss of the low degree of vitality which it possesses, & this death producing a rupture of the membranoid pellicles surrounding & giv-

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giving form to the globules, whose inner surfaces interlocking with each other express the serum, & thus confine the coagulum, the capilliaries of the womb may destroy these pellicles in the same manner that lightning or blows on the stomach effect it, or they enter the absorbents: And for a reason why it is changed, we may say that it is agreeable to that wisdom which we see every where displayed in the works of nature, for to what miseries would the female be subjected if the menses coagulated.

Admitting the above statements to be correct, & at variance with no known law of the animal economy, still, we have to account for the discharge of this coloured fluid occurring every lunar month, & why it should be necessary to prepare the female for conception. Speculations have multiplied one after another, hypotheses have been erected on untenable foundations, & theories have arisen to flourish & sink into the dust with their projectors. Without occupying space or time for the consideration of

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these palpable errors or even the one lately proposed by Sir Everard Home, wherein he believes that every twenty-eight days a woman has a venereal appetite, & that this proves a stimulus to the ovaria & causes a secretion of an unfecundated ovum, & its liberation by the corpus luteum, which upon entering the Uterus excites the discharge of the menses; I shall here notice only the plausible theory more recently originated by Professor Samuel Jackson, & it is done not because the author possesses great talent & erudition, but on account of its connection with Uterine Haemorrhage. The Professor sets out with the established fact, that the human female may become impregnated at any season of the year, & when she does, there is a great afflux of blood to the Uterus from two causes, from the irritation developed in the organ by the stimulus, & from the necessity to supply the demands of its increased size. Now, if impregnation can take place at any period, the system must always contain the blood which will be demanded by the Uterus in a state of irritation & enlargement;

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ment; but impregnation not obtaining then, the system is under the necessity of throwing off this useless blood, which it does by a Haemorrhage from the womb every lunar month.

With however great satisfaction I might subscribe to most of this explanation of the cause of menstruation, yet, I cannot for a moment admit of the discharge being pure blood. This fluid in the natural state never coagulates, a circumstance, which, independent of the difference of colour, odour, & consistency, is sufficient evidence of its being a secreted, & not an extravasated or effused blood. With this single exception, for reasons already assigned, & from the facts that females are more disposed to plethora than men, as must be the case from their sedentary habits, & that the discharge depends on a topical congestion, as is proved by venesection preventing or checking it, I consider the above illustration the most rational that has been offered, & in the present state of medical science, think it may be deemed the true cause of menstruation.

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Having, as I trust, fully considered the natural function of the Uterus in relation to the catamenial discharge, & attempted to show it to be a genuine secretion, I next proceed to that derangement of it constituting Haemorrhage. The causes which may produce this change in the unimpregnated state of the Uterus, may be reduced to those which effect irritation in the general system of the female, such as fevers, increased circulation from mechanical injuries, &c; & those which induce general debility or laxity in the blood-vessels, such as a typhoid condition of the system, enervating articles of diet & drink, &c.

From the peculiar nature of the healthy office of this organ, there appears in it a reason why it should be especially liable to Haemorrhage; for all that seems necessary to occasion it, is a change in its capillary circulation, either an increased action, overcoming the low degree of secretion it performs, or a topical relaxation, preventing it. By secretion is here meant that function, by which a fluid or solid is elaborated from the circulating mass, differing from

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it in properties; & to that organ which thus produces the greatest change from the blood I attribute the highest, while to that which effects the least, I would asign the lowest grade in the scale of secretory apparatuses — the latter will be found the case with the fluid secreted by the uterus. And because it elaborates a fluid in its natural & healthy condition differing but little from blood itself, a slighter cause will be required to change the menstrual discharge of the womb to an Haemorrhagic character, than in any other organ. The causes too which are supposed capable of producing Haemorrhagy, act more advantageously during the period of menstruation, merely changing the secretory action to an extravasation or effusion of blood; & hence the frequency of Medical writers confounding this disease with Menorrhagia proper, but from which it is always to be distinguished by the coagula & profuseness of the discharges.

The Treatment is naturally divided into those remedies that are applicable during the paroxysm or flow of blood, & those that are to be administered during the intermission. The indication to be fulfilled in the first

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is to arrest the flow of blood. And this ought to be accomplished at once, for even in the unimpregnated state, the quantity discharged, although it does not produce immediate death, yet may so prostrate the vital energies as to call into action those disease to which the system is predisposed. We should therefore, when called to a patient labouring under Uterine Haemorrhage, turn our attention particularly to this point, to arrest the discharge. And to answer the end in view, a horizontal posture on a matras & complete rest, are strictly to be enjoined as the very first step. Should it be ascertained to arise from general irritation, & the pulse indicate it, venesection must be resorted to, to reduce the vascular excitement. Cold air is to be freely admitted to the body, & ice applied to the pubic region, or cold water injected into the vagina, to promote the contraction of the bleeding-vessels, & muscular fibres intervening between them. At the same time, opium or its preparations, either alone, or in combination with the acetate of lead, is to be administered internally, or employed in the form of an enema.

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If the discharge be kept up by irritating contents in the rectum, the bowels are to be opened by gentle laxatives. From the control that digitalis exercises over the heart & great arteries, it may be of much advantage in cases of excitement, after depletion has been premised. And it may be well to recollect that this is one of the means by which the activity of the pulse can be best allayed, & in some instances, is to be preferred to depletories or nauseating medicines.

Should, however, the Haemorrhage be owing to a typhoid condition or other debilitating causes, blood-letting will be improper, & the admission of cold air & application of iced-water must be more sparingly employed. Opium, cordials, & nourishing articles are to be given with a more liberal hand, though they must not be carried so far as suddenly to rouse or excite the system. As the flow of blood may depend on a topical relaxation of the Uterine vessels, digitalis would aggravate it. Stimulating astringents injected into the womb, where from false motives of delicacy

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icacy or from improper cases the tampon cannot be used, will probably be attended with an arrest of the discharge, or at least, with great advantage. And sulphuric acid seems so well adapted that it should not be neglected as an auxilliary in these cases. But, as it is impossible to set down specific rules by which we are to be governed, or embrace in any one description all the variations which may occur, & the indications which ought to be fulfilled, it may be necessary to state that our practice is to be regulated on general principles. We shall seldom go wrong if after a careful investigation into the state of the system, we prescribe according to symptoms actually present. Should the method mentioned not succeed, a gentle emetic of ipecacuan may have its impression communicated to the Uterus, & restrain the loss of blood; a safer mode will be to combine it with opium in nauseating doses, to excite the action of the skin. From a knowledge that the ergot only exercises an influence over the contractility of this organ, its administration in the unimpregnated state will be followed by no advantage, since the womb

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is already contracted. Our chief reliance must therefore be placed on rest, cold air, & depletion, when the Haemorrhage arises from an increased circulation; & on the tampon, astringents, & opium, when it depends on debility — recollecting in the one case not to depress the system by sedatives, nor to excite it in the other by stimulants, but to persue that happy medium which tends to equalize it.

The first indication being accomplished, the arrest of the discharge, the attention must now be directed to the second, which is to make such a healthy change in the Uterine system, that it may at the next menstrual period perform its natural function free of coagula. It has already been remarked, that the most frequent variety of Uterine Haemorrhage in the unimpregnated state, is, where it is complicated with the catamenia. Consequently, without a revolution of the Uterine system during the interval, the same action will in all probability occur at the next lunar period, although at the preceding one it was checked be-

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To fully produce this healthy change, the patient on arising from her bed to resume her domestic avocations, should be seriously impressed with the necessity of all the exciting causes being strictly avoided. The articles of nourishment should be mild & digestible, & every thing highly seasoned & stimulating prohibited. Alcoholic liquors are injurious, & the drinks should be cold & acidulated. As irritation in the rectum is easily transmitted to the Uterus, constipation is to be guarded against as well as diarrhoea & dysentery. To prevent plethora more effectually, the ingesta must be diminished, sleep abridged, & exercise in open air increased. But above all, heat in every shape is to be most carefully shunned. These restrictions are to be particularly enforced immediately antecedent to the period of menstruation, & should the system be in the least excited, or one symptom exist to demand it, blood must be drawn; & during the flow of the menses to prevent an Haemorrhagic action in the vessels,

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so much of the treatment previously recommended as may be deemed requisite, ought to be directed.

But where the Haemorrhage has either proceeded from, or brought on debility, a more invigorating plan will be required. The object here is gradually to strengthen the system in order that it may be able to perform with energy its wonted functions. To accomplish this end, a rich & nourishing diet will be necessary; & the peruvian bark, iron, & other tonics, together with the judicious use of the cold bath, will generally so restore the tone of the blood-vessels, as to prevent any unnatural discharge from them at the end of the month. And at that critical time the system is to be carefully watched, & the symptoms which arise are to be managed accordingly.

Second, those Haemorrhagies which happen during the period of Utero-gestation.

We now enter upon the consideration of that division of the subject, the importance of which must attract the attention of the most superficial observer.

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For, where shall that man be found so hardened in sensibility, so destitute of sympathy, & so dead to the finer feelings of our nature, as to look on unmoved at those accidents which occasioning an impetuous discharge of blood, destroy at the same time the life of the mother & her unborn infant. If there be a period at which woman becomes more lovely & interesting, it surely is that, when she is silently undergoing those changes which are to befit her for the pleasures & duties of the maternal relation. And there cannot be a case to which a Practitioner is called, where he has to assume greater responsibilities; & no disease which he has to encounter, where prompt & decided measures, & a just discrimination between cold delay & rash precipitation are more requisite, than in Uterine Haemorrhage complicated with pregnancy.

Soon after the passage of a fecundated ovum through the fallopian tube into the Uterus, it becomes attached by innumerable blood-vessels to that organ, which increase in number & size as gestation advances. This connection being an interlocking of the little vessels on the outer surface of the chorion with those on the inner

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ner face of the decidua, or in other words, each affording a nidus, into which the blood-vessels shoot reciprocally; it must be evident that if a separation takes place between these membranes, more or less blood will inevitably be extravasated. And from the rapid growth & peculiar delicacy of the connecting medium, it is easy to concieve how many & diversified are the causes producing this effect.

A partial or total separation of the placenta or membranes from the Uterus, may happen at any time within the term of Utero-gestation — if the ovum be expelled during the first six months, it is said to be an abortion, if after the sixth month it is called a premature delivery. And there would seem to be a propriety in the division of the subject into those Haemorrhagies connected with abortion, & those with premature delivery, but as their causes & treatment are nearly the same, the principles of which can only be dwelt upon at present, I have introduced them under one head, leaving the peculiarities to be pointed out

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The premature separation of the placenta or decidua from the uterus, is the proximate cause of all these Haemorrhage, & that by which this separation is produced is the remote one; & to enumerate every thing capable of effecting a division would be an endless task, a few of the most common must therefore suffice. It is evident how external injuries, great exertions, irritations & plethora may produce a rupture by an increased activity in the circulation, either local or general, beyond the capability of the vessels of the Uterus to sustain. And it must also be plain, that, whatever promotes the contraction of the womb, as the puncture of the membranes, the arrest of gestation, or the death of the child, will all ultimately occasion a detachment of the ovum with its coverings, & consequently a discharge of blood. But the most dangerous cause of Uterine Haemorrhage is the implantation of the placenta over the os uteri. All others except this one are accidental, but from the inevitable necessity of more or less effusion of blood attending these cases in the last months of pregnancy,

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it has been termed the "unavoidable cause". That this will always prove such, must be apparent when the relative situations of the parts are correctly considered. It will then be discovered that if the deciduous mass is placed over the os uteri, & the body & fundus contract, or resist further dilitation, which latter is the case after the seventh month, the neck of the womb will be called into action, & expanding, must inevitably & unavoidably rupture the vessels & separate the placenta.

The Haemorrhage happening from what cause soever, it is not the unerring consequence for the patient to die, even when unassisted; for, nature here kindly attempts to save the sufferer by syncope which promotes coagulation, & by contraction to expel the child & thus close the orifice of the bleeding-vessels. But notwithstanding all this, she needs the hand of direction & requires the aid of art more than in any other disease. For although the mouths of the vessels be stopped by coagula, yet the faintness is no sooner recovered from than the increas-

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ed circulation throws off the clots, & blood is poured out again, & what if the child be delivered & the placenta be retained — no Practitioner conscious of the danger would trust a case of misplacement of that mass to the powers of nature alone!

If much blood be lost, that which remains does not possess the stimulating properties necessary to carry on the functions of the system, the energy of the brain & nerves is diminished, respiration becomes laborious, the heart pulsates feebly, & the stomach cannot digest the food it receives, hence the nausea, retching & eructations which take place under such circumstances. Should the flooding still continue, all the above symptoms are aggravated, & the pulse becomes imperceptible at the wrist, the face & lips are pale, a cold clammy sweat beginning on the extremities, breaks out over the whole body, & every action is performed with langour & weakness. In this state the slightest impression will inevitably sink the patient, & in the language of Mr. Burns, "we may stop the Haemorrhage, but recovery will not take place — we may deliver the child, but the womb will not contract."

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The first object in the treatment is always to check the discharge, by which time is gained to deliberate whether to hasten the expulsion of the foetus or attempt to preserve the action of gestation. To meet this indication, the recumbent posture & absolute rest are to be immediately directed, for without these all other remedies will be in vain. As it will be necessary to ascertain the possibility of retaining the ovum to the full period, inquiry into the cause of the Haemorrhage, the degree of pain & its nature, & the rapidity of the flow & quantity lost should be made; but we are to be governed chiefly by an examination, when the discharge will be found in proportion to the extent of the separation, to the situation of the placenta, & to the state of the Uterus. Let the result of the examination be what it may, unless the patient be much prostrated, & the os tincae relaxed, with a continued flow of blood, we are to proceed upon the expectation of restoring the Uterus to its healthy action. And if but little blood has been lost, if the os uteri be found hard & rigid, & the

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womb in a quiescent state, then we may hope that by prudent management, the full period will be accomplished. Cold for the same reasons & in the same manner as recommended in the unimpregnated state, is to be employed, & ice may advantageously be introduced into the vagina; & injections of the acetate of lead, of the sulphate of alumine, of powdered galls, particularly the last are highly spoken of by the learned & experienced Professor, Dr. James. The sugar of lead & opium are to be liberally administered, & all drinks taken cold & acidulated. Venesection is of the first importance, & should only be neglected in extreme cases. One decided bleeding will often arrest the discharge, subdue vascular action & restore tanquility to the system. This, together with the judicious use of digitalis, are the most efficient means of reducing the activity of the pulse & allaying irritation.

But of all the remedies which we posess in Uterine Haemorrhage, the tampon is by far the best application to restrain the violence of the discharge. All others may fail but this seldom does. It so effectually checks the stream of blood that by its timely em-

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employment, many lives have been saved, & many cases of profuse flooding preserved to the natural termination of Utero-gestation. It acts upon the principle of compression, & promotes the formation of coagula in the orifices of the bleeding-vessels. The only possible objection that can be raised against it, is that it may conceal the Haemorrhage, but the Uterus is seldom so flaccid & relaxed as to dilate from the effusion of blood into it, & moreover, this state can be ascertained by touching & by pressure on the abdomen. And even if the expulsion of the child be inevitable, still it preserves the strength of the patient, & thereby promotes the tonic contraction of the womb.

It will be perceived from the foregoing remarks, that to check a paroxysm of flooding connected with pregnancy, our greatest reliance is to be placed on <u>venesection</u>, on the <u>horizontal position</u>, & on the application of <u>cold</u> & the <u>tampon</u>.

Having by these measures conducted the Haemorrhage to a close, we are ever after to consider the patient peculiarly liable to a return, & never totally free from danger until delivered, since it is now ascertained

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that the separated portion of the placenta never reunites to the place from which it was detached. And to obviate recurrence, too much attention cannot be paid to diet, to regular habits, & to keep down the action of the pulse. It was formerly the practice, & is now the custom of the vulgar, to recruit the system with all possible despatch, by the liberal use of wine, cordials, & nourishing articles; but the prudent Physician discerns this error as easy as he does that of arousing the system from syncope by hot brandy, which has the indirect tendency to produce what it was given to prevent. And instead of generating in the stomach what he endeavours to obviate, he directs a strict adherence to the antiphlogistic regimen, & to avoid all the occasional causes, the excitants of the circulation, particularly heat, &c, & while irritation is allayed & excitement subdued the system is supported.

If however, all the attempts to continue the action of gestation prove fruitless, or it be impossible to resist the expulsion of the foetus, then we must promote it. But it ought to be remembered that much discernment & profound judge-

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ment are required to decide this point. A thorough insight into the effect of the loss of blood both on the constitution & Uterus should be gained — if the system be much prostrated & there is danger of syncope, vomiting & other distressing symptoms supervening; & if the os uteri be found dilated & the pains of contraction continue, or the placenta be fett — these may serve to guide us in our determination. As a general rule it may be stated, that all Haemorrhagies in the first six months of pregnancy, may be trusted to the operations of nature after the introduction of the tampon. For if the ovum will come away, this application, while it arrests the discharge, serves to ditate the os uteri & promotes the contraction of the body & fundus; & the flooding attending these cases is commonly not very profuse, though sufficient to claim serious attention in a partial separation or retention of the deciduous mass, which will be treated of under the next head of the subject. And this distinction constitutes the chief difference between those Haemorrhagies connected

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But in flooding occurring after the sixth month, or dependant on an implantation of the placenta over the os uteri, it will require all the skill & ingenuity of the Accoucheur to effect a safe delivery, which after the palliative means have failed, must be attempted in order to secure the contraction of the womb. The Haemorrhage generally ceases on the rupture of the membranes, & it is far preferable to complete the labour by the operation of turning. Cases of unavoidable flooding are to be distinguished from all others, by the knowledge, that in a healthy condition, no change is induced in the neck of the womb before the end of the seventh month of Utero-gestation, unless excited by some occasional cause; & by an examination, when the placenta will be felt intervening between the child & finger, & which is to be discerned from a coagulum by its consistency.

It having been thus ascertained to be a placental presentation, & that the Uterine contractions have commenced, every preparation must be made

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made for a profuse Haemorrhage & the patient not left until delivered. The arrest of the flow may by the usual method be entirely effected, but we are to view it as an uncertain & deceitful calm, for sooner or later a second accession will take place, & if absent we may be sent for to witness the expiring victim of our neglect & mismanagement weltering in her own blood. This momentous fact should put us on our guard, while at the same time it points out most forcibly the necessity of making in all cases a careful & distinct examination. In the exercise of our best judgement & discretion, we should endeavour in delivering women who have this placental presentation, to hit that happy point where the os uteri is not rigid & undilatable, nor delay to act until the system would sink under the operation. The hand previously lubricated is to be introduced, the placenta detached at one of its edges, wherever it is thinnest, the membranes ruptured & the feet brought down. It is always the soundest practice to pass by the deciduous mass, & not through it, because, in the one case though vessels are rup-

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ruptured, yet, by the irritation on the parietes of the Uterus its contraction is promoted, whereas in the other the very center may be opposed or the umbilical cord injured, & if from any cause the hand be withdrawn or the delivery delayed, the child will most certainly suffer. These reasons should induce us ever to pass by, & never through the placenta; & the same cause that influenced us to bring down the feet of the child, should urge the propriety of terminating the delivery. All this is to be done with dexterity without rashness, with firmness without violence.

Third, those Haemorrhagies connected with the delivery of the placenta.

Upon the whole, the most frequent cause of Uterine flooding is the partial or total separation of the placenta from the Uterus after the child is delivered. From what has been said on the connection of this mass to the inner surface of that organ, it must be evident that if it be detached while the womb does not contract, then, more or less blood will be poured out from the torn & opened vessels. The causes preventing

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ing a tonic contraction, are principally violence committed to the Uterus, as pulling at the cord, or previous Haemorrhage inducing in it a state of debility — too sudden an expulsion of the child sometimes, also, leaves the organ in an atonic condition.

The object in the treatment is clearly, to promote the contraction of the Uterine fibres, by which the placenta is detached & expelled, the bleeding-vessels compressed, & the sanguineous discharge effectually prevented. To fulfil this important indication, the horizontal position already spoken of in the first & second division should be strictly enjoined, & all things obstructing the admission of fresh air removed. Cloths dipt in the coldest water should be applied to the pubic region, & ice introduced into the vagina. Frictions made by rubbing & grasping the womb with considerable force through the abdominal parietes, should be instituted, & this simple process will be discovered in practice to be among the very best means to hasten the delivery of the placenta. Venesection on the principle of revul-

sion

sion ought not to be entirely overlooked in these cases, & it often is indispensible where there is a retention from spasm of any of the Uterine fibres. And of the internal remedies, the acetate of lead guarded with opium, has proved in many instances & extensive trials to answer the best of purposes, likewise, cold water taken freely, by the sympathy existing between the two, soon diverts the action from the organ in question, to the stomach.

But, if these measures on a careful application be found unavailing to complete even the expulsion of the secundines, they must next be attempted to be brought away by manual interference, & if the hand cannot be introduced, the wire crotchet of Dr. Dewees may be substituted. It having been purposely deferred to its most appropriate case, nothing as yet has been said of the ergot or spurred rye. Confessedly if there be a specific among the articles of the Materia Medica, it is the secale cornutum in promoting the contraction of the Uterus. Ample experience of the most respectable kind has satisfactorily testified, that exhibited in the

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the dose of twenty grains, it acts most powerfully in forcing the womb to a tonic contraction. The American Journals abound with cases of its successful employment in difficult parturition, arising from a want of power in the Uterine system, & I may add one that came under my own observation. It operates most certainly in about fifteen minutes, & though with considerable vigour yet it is quite evanescent in its effects. The only prerequisite or preparatory measure that seems necessary to its administration, is that the os uteri be dilated, or dilatable, since if it were otherwise, it might be ruptured under its influence. And here the Accoucheur can congratulate himself in possessing a remedy in the ergot, by which he can often hasten the lingering labour, expel the retained placenta & check the Haemorrhagies of the womb.

As the general management, is the same after the delivery of the placenta as it is before, except that the tampon may with more propriety be applied, I shall in conclusion merely say a few words on the operation of

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transfusion. It frequently happens in this country, where Midwifery is almost exclusively confined (with a few very honourable exceptions in our large cities) to a poor, ignorant illiterate class of women, that a regular bred Physician is seldom called to a case of Uterine Haemorrhage, until the patient is prostrated by the successive attacks of syncope, & life floats on its last ebb; it appears that even in this state it might be revived by a foreign but congenial stream of blood. The operation being one of practicability, & having succeeded in the hands of others, I cannot but think it merits more than it has received of the attention of our countrymen. And from the immense importance & interest of the subject to mankind, too much cannot be attempted towards alleviating the miseries which flow in upon whole families by the loss of their Maternal head. The operation of transfusion has in several instances unquestionably restored to their friends those, who without its happy aid would have prematurely, & in the most interesting moment, been snatched from the enjoyments & responsibilities of life.